extensive with that of all the other parasitic diseases rolled together. Whilst one can but admire the energy displayed by our Transatlantic brethren in turning every scientific discovery to practical account, we must at the same time observe that only a very few of the voluminous reports received by us from the various States contain matter sufficiently novel to demand extended notice at our hands. Dr. Sutton's report, admirable as it is in many respects, forms no exception to the general rule. By European helminthologists the recognition of Trichinosis in the human subject is no longer spoken of as a "recent discovery," seeing that Zenker, whose merit in this relation is supreme, diagnosed the "loathsome disorder" in 1860, whilst the antecedent steps in the chain of evidence were long previously established by Leuckart and Vichow (1859), Herbst (1850), and so on backwards, until we come to the date of the original discovery of the worm as a nematoid by Paget, and its subsequent description by Owen (1835). We may go even further back than this, and point to Wormald and Hilton's previous and independent recognition of the calcified trichina capsules, and also to their still earlier detection by Peacock (1828), to say nothing of the evidence in favour of Tiedemann (Froriep's *Notizen*, 1822). We must dissent altogether from the view expressed by Dr. Sutton, that Trichinosis probably caused "the ancient Jew to prohibit the use of pork" as food. On the other hand, we are glad to perceive that our author adds his testimony to the view previously taken by ourselves and others, that there is no connection between trichinosis and the so-called "hog cholera." In this regard Dr. Sutton would have done well to have consulted Prof. Verrill's various papers (*American Journal of Science and Arts; Report of Connecticut Board of Agriculture*, 1870), and, if possible to him, also, our own subsequent contribution on *Stephanurus* (NATURE, vol. iv. p. 508). Lastly, we can only remark that if Germans will not abandon their habit of eating "smoked sausages" they must expect to be trichinised. Clearly, the fault is their own.

T. S. COBBOLD

The Sea. By Jules Michelet. (London and Edinburgh: Nelson and Sons, 1875.)

MICHELET, as our readers know, wrote a number of works on subjects which suggest a scientific treatment—"L'Oiseau," "L'Insecte," "La Mer," and "La Montagne." The present volume is a translation of the third mentioned, and we believe that at least one of the others has been put into an English dress. These works can hardly be regarded as scientific, except in so far as Michelet seems to have taken laudable pains to acquaint himself, before writing, with some of the principal and especially the most interesting facts which science has discovered in connection with his various texts. For really the titles of his quasi-scientific works are only texts, or rather themes, round which he accumulates a vast variety of more or less appropriate facts, reflections, and word-pictures. He might indeed be regarded as the rhapsodist of science, a man of distinctly poetic or imaginative temperament, excited to enthusiasm by reflections on the facts furnished to him by science. Of course no one would think of resorting to Michelet's works to study any of the subjects he thus treats, but nevertheless his works have their uses from a scientific point of view, uses which we have often referred to in speaking of popular scientific works. "The Sea" will no doubt attract many English readers now that it is translated, and notwithstanding its rhapsodical nature it contains a very fair amount of really useful and trustworthy information concerning marine physics and marine life. But, as in his other works, Michelet skips about his subject on all sides, poses it in every possible attitude, sings about it from every possible point of view. The illustrations are charming, and the book as a whole is got up with great taste. The Messrs. Nelson have done well in publishing such a translation.

LETTERS TO THE EDITOR

[*The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts. No notice is taken of anonymous communications.*]

The Dresden "Gorilla"

IT is a mere chance that I did not see the numbers of NATURE from Sept. 30 till to-day, and I therefore missed the note (vol. xii. p. 482) about the female chimpanzee of the Zoological Garden of Dresden, said to be a young gorilla. In my opinion there can be no question that this ape is not a gorilla. It is only a very fine specimen of a chimpanzee with a darker face than usual, it is true, but this is by no means sufficient in the present state of our knowledge to separate it specifically from *Troglodytes niger*. I only mention here the *one* characteristic referred to in NATURE—"the slight webbing between the fingers." There is no webbing at all between the fingers which deserves to be called so, and there is a fundamental difference from the hand of a gorilla, not only in respect to this characteristic, but also in respect to the proportion of the fingers to each other. The hand of the Dresden specimen is very long and slender; the hand of the gorilla, even of the young one, is known to be broad and short fingered. But there is a long series of reasons which clearly speak against the supposition that this specimen is a gorilla, and I really do not perceive how anyone can advance this opinion after a very insufficient inspection. It is not enough to say, "I take the specimen for a gorilla;" scientific reasons are needed, and that, too, from some one who really understands the question; it was at least very rash to come out with *this* gorilla. As soon as anyone of the supporters of the opinion that this chimpanzee is a gorilla shall have published *scientific* reasons, I will take occasion to report about it, and to discuss these reasons. Till then there is no reason whatever to go deeper into the matter, and to regard this ape as anything other than a *Troglodytes niger*.

The two specimens of Birds of Paradise, about which I wrote to you some time ago (vol. xii. p. 434), are now in the Zoological Garden of Berlin.

A. B. MEYER,
Director of the Royal Natural History Museum of Dresden

Dresden, Dec. 3

Dr. Stoliczka's Collection of Mammals

I SEND you an extract of a paper lately published in the *Journal of the Asiatic Society of Bengal* by Mr. W. T. Blanford, on the mammals collected by the late Dr. Stoliczka in Yarkand, &c., and have italicised one or two of the more important sentences. These show how the value of the fine collection has been materially reduced by the appropriation of the finest heads of ruminants, &c., after Dr. Stoliczka's death. The collection before its arrival in Calcutta was known to contain some splendid heads of *Ovis poli*, and other wild sheep, all of which were carried at the expense of the Indian Government from Yarkand over the Karakoram *viâ* Kashmir to India, a long and costly journey. The finest of these heads, it is well known, have passed into private hands, while the Government Museum in Calcutta cannot show a specimen of decent size. The whole should have passed intact to the above museum, and would have been there examined, and the duplicate specimens sent to the Indian and British Museums here in England. The extract from Mr. Blanford's paper tells its own tale, and I think it would do good to let the fact of the partial destruction of a valuable collection of an able naturalist be more widely known than to the few readers of the *Journal of the Asiatic Society of Bengal.* Every specimen in the collection was as much public property as the munitions in a Government store, and could not be disposed of by any member of the Government or mission.

Extract from the "Journal of the Asiatic Society of Bengal." Vol. xliv. Part II., 1875.

"List of Mammalia collected by the late Dr. Stoliczka when attached to the Embassy under Sir D. Forsyth in Kashmir, Ladák, Eastern Turkistan, and Wakhau, with descriptions of new species. By W. T. Blanford, F.R.S., F.Z.S.

"The collections made by Dr. Stoliczka in Kashmir, Ladák, Kashgar, and Wakhau comprise a very fine series of Mammalia, the description of which has been entrusted to me by Mr. Hume, who has undertaken the general direction, besides a very large share in the details of a work intended to be a memorial of our

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late friend. It is of course impossible to supply the place of the naturalist whose collections I shall do the best to describe, for with him has perished much knowledge of the habits and distribution of the animals, and although this want can be partially atoned for by the copious notes he has left behind, much unfortunately can never be replaced. . . . There is always more difficulty in procuring specimens of Mammalia than in collecting terrestrial animals belonging to most of the other classes of vertebrata and invertebrata, and this is especially the case with the larger forms. It is consequently not to be expected that the species represented will be more than a portion of those inhabiting the country. Still the collection is rich in some respects, and especially in kinds of rodents, and it adds largely to our knowledge of the fauna of Western Tibet and Eastern Turkistan. *The larger mammals, indeed, were originally better represented, but after Dr. Stoliczka's death many specimens appear to have been removed from the collection.* Such at least was the case with the ruminants. In a private letter which Dr. Stoliczka wrote to me, he told me he had sent twenty-two skins of wild sheep from Kashgar. Of these only eleven—seven males and four females—are now forthcoming, and not one of these has fine horns. There is not a single specimen of *Ovis poli* from the Pamir, the original locality, although I have reason to believe that Dr. Stoliczka brought away one head at least. Lastly, there are *skeletons* of wild sheep and ibex in the collection *of which the heads have disappeared.* It is highly probable that other specimens besides those of *Ovis poli* have been similarly made over to private individuals. The value of the collection has been seriously diminished by its being broken up, and the finest specimens distributed, before it had been examined," &c.

(True extract.) H. H. GODWIN-AUSTEN,
Superintendent Topographical Survey of India

Glands of the Cherry Laurel

IN NATURE (vol. viii., p. 245) Mr. Thiselton Dyer, in answer to a correspondent, says that he knows of no explanation of the purpose or origin of the nectariferous glands on the back of the leaf of the cherry laurel. Mr. Darwin ("Origin of Species," sixth edition, p. 73) says: "Certain plants excrete sweet juice, apparently for the sake of eliminating something injurious from the sap; this is effected, for instance, by glands at the base of the stipules in some Leguminosæ, and at the backs of the leaves of the common laurel. This juice, though small in quantity, is greedily sought by insects; but their visits do not in any way benefit the plant." Glands cannot be considered very complex modifications of cellular tissue. They exist on all parts of plants, and contain a great variety of secretions. Mr. Darwin and others have shown that they perform the varied functions of secreting nectar to attract insects to flowers, of secreting odorous matter for the same purpose, of absorbing ammonia from rain-water and the products of decomposed or digested animal or vegetable matter, and of secreting acids capable of digesting solids. The existence of free acids in the plant would be injurious to it, so that their excretion would be beneficial to it apart from any digestive function which they may in some cases perform. The glands of the laurel are so far unspecialised that they are by no means constant in number or size. As their attracting insects is of no service to the plant, the nectar must be said to be excreted; but, being what Sachs has termed (p. 629) a "secondary product of metastasis," it should be looked upon rather as a physiologically accidental excretion than as positively injurious, as a substance which, having ceased to take part in the processes of growth, has not acquired an indirect function as has the nectar of flowers. To account for the position of the glands it may be suggested that, as in other evergreens, the leaves of the laurel are "reservoirs of reserve material" in which metastasis, including the separation of the "formative materials" from the "secondary products," mainly takes place (Sachs, p. 627).

G. S. BOULGER

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Saw-fish inhabiting Fresh Water

I AM not aware if a curious fact connected with the lake near Manila has been noticed by any traveller.

The Laguna de Baij is a large sheet of water some ninety miles in circumference, divided by an island and two peninsulas, from which it is often spoken of as the "lakes." This lagoon receives the waters of the small rivers of the provinces of the Laguna and Morong, and its only outlet is the river Pasig, which flows into the bay between the military city and suburbs of Manila. The volume of water discharged by the Pasig is augmented by that of another river which joins the main stream some eight or nine miles from Manila, and during gales in the S. W. monsoon, which prevent the free egress of the water, the Pasig overflows and covers the flat land round Manila.

The water of the lake is quite fresh, and after settling, perfectly potable. At certain times the waters of the lake of Baij possess an urticating property which makes bathing very disagreeable from the irritation they produce. The natives (who account for everything in some way or other) attribute this to the Pistia, a plant which is so abundant as to fill up small bays and form floating islands of considerable size. Great quantities of this plant are carried down the river into the bay, and are seen sometimes a long way out at sea, killed and yellow from the effect of the salt water. Sections of the leaves are beautiful microscopic objects. The lake is separated from the Bay of Manila by a few miles of very flat land, and there can be little doubt that before this barrier was thrown up it formed part of, or at least communicated with, the bay. One proof that the waters were once salt is the existence of a bank of fossil oysters at the point of Julu-julu, some twenty miles from the outlet by the river. When this barrier was raised the waters of the lake became gradually fresh from the influx of those of a number of small rivers which drain the surrounding provinces, the only outlet for which (as before mentioned) is the river Pasig.

The peculiarity to which I have alluded is the existence of a species of small shark and numbers of Saw-fish (*Pristis*) in the perfectly fresh water of the lake. They are seldom or never met with in the river, but there is a fishery in the lagoon in which numbers of the latter are taken. The flesh is eaten, the livers give a good deal of oil, and the snouts of the larger specimens make very formidable weapons, which the natives use and which are at times sent down to Manila as curiosities. These saw-fish, now living in perfectly fresh water, have no doubt become gradually accustomed to the change, as has been the case with the marine species of Crustacea discovered by Prof. Lóven in the fresh water lakes of Sweden.*

I am unable to describe the sharks, which I think from the account given me are a small species of dog-fish, quite harmless. Very different, however, are a larger kind inhabiting the brackish water of the lake of Bombon, in which is situated the active volcano of Taal (south-east of the great lake, about twenty or twenty-five miles distant by road). This kind of shark is feared by the natives, who avoid bathing at points which they frequent.

Manila W. W. WOOD

Observations on Fish

IN May last the writer dug a tank within the premises at Garden Reach. About the end of July it was stocked with young fish of several kinds, among others a species of carp, called by the natives "Katlah," which abounds in the turbid waters of the Hooghly, within the range of the tides. The fry varied from half an inch to an inch in length, some even smaller. The "Kutlah" does not breed in fresh water, but attains an extraordinary size in a wonderfully short time in ponds. So very rapid has been the increase of the fish in question, that the fact seems worthy of chronicle in the pages of NATURE. On Sept. 22, the tank was swept with nets to catch one or two fish of the pike species that had been introduced accidentally with the others, and attained a size that rendered them dangerous to the fry of other kinds. In the net several dozens of the "carp" referred to were taken; one of the largest weighed 14 oz, and measured 11 inches from the end of the upper lip to the tip of the tail, $1\frac{3}{4}$ inches thick behind the shoulder, and $3\frac{1}{2}$ inches in breadth; the others were only one or two ounces lighter.

The tank (pond) in which these fish throve so marvellously is only 65 feet long by 58 feet broad, and 13 feet deep. The natives, many of whom live within the compound, wash their rice and other food in the water, preparatory to cooking, furnishing the fish with a large amount of food. As the writer saw the tank dug and the fish put in, there cannot be a doubt about their increase in the short space of three months from small fry barely an inch long, to fair-sized fish 11 to 14 oz. in weight, measuring from 10 to 11 inches. ROBERT U. S. MITCHELL

Misti and its Cloud

IN NATURE, vol. xii. p. 487, Mr. Stevenson gives an interesting example of the genesis of clouds, due to hills of about

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* See NATURE, vol. i. p. 454.

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